# HIP ARTHROSCOPY

(Post-Operative Protocol)

Prepared for Dr. J.N. Cakic

This protocol is designed to serve as a guideline for clinicians and therapists. One should consider the general health, bone quality and anticipated functional demands of each patient; continual assessment is essential when considering patient progression. Should you have any queries or concerns, please consult with the surgeon or rehabilitation team.

Your post-operative rehabilitation forms an integral aspect in the success outcome of your joint replacement. Active participation and education are encouraged throughout your rehabilitation.

#### WEIGHT BEARING AND ROM GUIDELINES

Surgery Type	Weeks	Weight Bearing	ROM		
Femoro-acetabular	0-4	Partial (2 crutches)	Active $60 - 70\%$ of unaffected side		
Impingement	4-6	Partial to Full (1 crutch)	> 70% (to tolerance)		
(CAM / Pincer)	> 6	Full	Full		
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	0-4	Partial (2 crutches)	Active $60 - 70\%$ of unaffected side		
Labral Repair	4-6	Partial to Full (1 crutch)	> 70% (to tolerance)		
1	> 6	Full	Full		
	0-4	Partial (2 crutches)	Active $60 - 70\%$ of unaffected side		
Abductor Release (ITB / TFL)	4-6	Partial to Full (1 crutch)	> 70% (to tolerance)		
	> 6	Full	Full		
	-		<u> </u>		
			Active 0-90 Flexion		
			Passive Abduction ONLY		
	0-8	Partial (2 crutches)	No Adduction across midline		
			No Internal Rotation		
Abductor Repair			No Active External Rotation		
	8-12	Partial to Full (2 crutches)	Full Flexion / Extension		
			Passive Internal / External Rotation		
	> 12	Full (wean from crutches)	Gradual full ROM		
Debridement	0-4	Partial to Full (crutches)	Full (To tolerance)		
Debridement	> 4	Full	Full		
	0-6	Toe Touching (2 crutches)	Full (To tolerance)		
Microfracture / Decompression	6-12	Partial to Full (1 crutch)	Full		
	> 12	Full	Full		
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Psoas Release	0 - 6	Full	Full		
	0-4	Partial (2 crutches) (to limit stride length)	Active and Passive Flexion 0-90		
			No External Rotation		
			No Extension		
Cansule Modification	4-6		Full Flexion		
Capsule Mounication		Full	No External Rotation		
			No Extension		
	>10	Full	Gradual introduction to External		
			Rotation & Extension		





## **<u>STAGE 1</u>** (± 4 - 6 weeks)

AIM	Protected weight bearing stage, protect integrity of repaired tissue				
	Restore range of movement within restrictions				
AIN	Maintain muscle function, preventing inhibition				
	Allow tissue healing / repair				
PHYSIOTHERAPY (Day 1 -14)	<ul> <li>The average in-hospital stay is one night</li> <li>Your hospital-based physiotherapist will instruct a home-based exercise programme, teach crutch walking and educate the patient on comfortable sleep positions and daily activities</li> <li>Patient will be discharged with a HOME exercise program (refer to end of protocol) Commence outpatient treatment 7-10 days following surgery Introduce stretching, core stabilization and correct GAIT patterning</li> <li>Passive and active hip mobilization</li> <li>Restore normal gait pattern (as per weight bearing restrictions)</li> <li>Patient education – including day-to-day daily activity</li> <li>Soft tissue mobilization – hip, thigh and lumbar spine (include spinal mobilization)</li> <li>Commence stretching (within ROM guidelines) - quadriceps, calves, hamstrings, adductors</li> <li>Initiate core muscle exercises (bed, mat programme)</li> <li>Commence stationary cycling with NO resistance. Raise the seat to prevent hip flexion &gt; 90°</li> </ul>				
<b>PHYSIOTHERAPY</b> (2 – 6 Weeks)	<ul> <li>Continue with Day 1-14 physiotherapy</li> <li>Continue / advance weight bearing &amp; ROM (as per guidelines table, page 1)</li> <li>Continue isometrics as per home exercise programme (if required)</li> <li>Introduce / progress CKC activity</li> <li>Introduce isometric hip rotation (deep stabilizers of hip), at 0° and 90° hip flexion</li> <li>Continue / advance gluteal exercises         <ul> <li>MOTE: Many of the short lever activities require large degrees of hip rotation; this may aggravate labral involvement.</li> <li>Long lever activities may decrease this excess rotational movement</li> </ul> </li> <li>Continue stretching</li> <li>Commence deep tissue massage around the arthroscopy incisions from 4 weeks</li> <li>Increase cycling activity (no interval training OR spinning)</li> <li>Increase core stability exercises (may introduce Pilates ball – respect the limitations of the patient's function)</li> <li>Introduce proprioception drills (refer to Weight Bearing &amp; ROM guidelines)</li> <li>Optional - Alter-G Anti-Gravity Treadmill© may be introduced</li> <li>Patient may start with swimming exercises 5 days after sutures removed and wounds are sealed:         <ul> <li>Use pool float device between the legs to eliminate kicking!</li> <li>No breaststroke!</li> </ul> </li> </ul>				

## **RESTRICTIONS / PRECAUTIONS:**

Do Not push through pain! Maintain Weight Bearing & ROM restrictions (Refer to Guideline Table) Minimize active abduction for the first 2 weeks Labral repairs are highly sensitive to active rotational activity



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#### **CRITERIA TO PROGRESS TO STAGE 2:**

- Achieve 70% of full ROM
- No pain during full ROM or with Stage 1 exercise
- Full weight bearing
- Proper muscle firing patterns
- No compensatory GAIT patterning
- Hip Stage 1- 2 Screening ≥ 5 points (refer to Hip Stage Screening)

## **<u>STAGE 2</u>** (± 6 - 12 weeks)

AIM	<ul> <li>Maintain full weight bearing</li> <li>Maintain / improve normal arthrokinematics / GAIT pattern</li> <li>Maintain ROM</li> <li>Increase muscle strength &amp; improve proprioception</li> <li>Focus on core stability</li> </ul>			
PHYSIOTHERAPY	<ul> <li>Continue hip, Lx Spine, SIJ mobilization</li> <li>Continue / advance stretching (especially hip flexors)</li> <li>Address fascial slings (if required)</li> <li>Continue / advance gluteal exercises</li> <li>Increase cycling activity (no interval training OR spinning)</li> <li>Increase core stability exercises</li> <li>Advance proprioception drills</li> <li>Introduce gentle active hip rotation (minimal resistance) – Please AVOID any flare-ups</li> <li>Patient may swim without pool buoy (No breaststroke!) <ul> <li>Treading in water (i.e. water polo) is patient specific training – this is individually assessed</li> </ul> </li> </ul>			

#### **RESTRICTIONS / PRECAUTIONS:**

 No ballistic or forced stretching

 No hopping

 Monitor hip flexor and adductor muscles for irritation / overload

 Minimize strengthening of hip adductors (Respect ratio of strength between Abd and Add)

 NB !! Check for "true anatomic" hip extension





## **CRITERIA TO PROGRESS TO STAGE 3:**

Full ROM (especially hip extension) No pain during full ROM or with Stage 2 exercise No GAIT pathology or compensatory patterning during GAIT Adequate abdominal core and gluteal strength to perform Hip Stage 2 – 3 Screening Hip Stage Screening 2- 3 Screening ≥ 7 points (refer to end of protocol)

## **STAGE 3** (± 8 - 16 weeks)

AIM	<ul> <li>Optimize neuromuscular control and proprioception</li> <li>Restore muscle endurance and strength</li> <li>Introduce cardiovascular endurance</li> <li>Advanced core stability</li> <li>Advance rotational hip activity (i.e. loading activity which requires internal / external hip rotation)</li> <li>Restoration of cardiovascular fitness</li> </ul>
PHYSIOTHERAPY	<ul> <li>As required – soft tissue treatment, joint mobilization / correction</li> <li>Monitor exercises and activity level</li> <li>Introduce lunges exercises</li> <li>Introduce side-to-side drills (<i>only</i> if no compensatory movement patterns present)</li> <li>Advanced neuromuscular and proprioceptive training</li> </ul>

#### **BIOKINETICS (Compulsory):**

Hip arthroscopy is a preservation technique to reduce; to maximize your outcome a complete rehabilitation is recommended and advised.

Advancing to biokinetic:

- Determined between 10-12 week at follow-up assessment (Doctor and / or Physiotherapist decision)
- No pain is permitted with full ROM
- Hip Stage Screening  $2 3 \ge 7$  points

Biokinetic assessment:

- Postural assessment
- Check ROM
- Functional movement screening and balance reaction
- Isokinetic strength test
  - Concentric vs. concentric Flexion : Extension / Abduction : Adduction

### **RESTRICTIONS / PRECAUTIONS:**

No axial loading prior to full biokinetic assessment No contact activities Avoid hip flexors / capsule inflammation with increase of activity level





#### **CRITERIA FOR PROGRESSION TO STAGE 4:** Maintenance of full and pain free ROM Hip strength > 70% of uninvolved side Hip Stage 3- 4 Screening ≥ 7 points (refer to end of protocol)

## **STAGE 4** $(\pm 14 \text{ weeks} - 6 \text{ months})$

AIM	<ul> <li>Biokinetics to monitor and assess return to sport activities</li> <li>Continue to restore muscle strength and cardiovascular endurance</li> <li>Maintain and advance core and gluteal strength</li> </ul>		
BIOKINETICS	<ul> <li>Repeat assessment as required</li> <li>Postural assessment</li> <li>Check ROM</li> <li>Functional movement screening and balance reaction</li> <li>Isokinetic strength test – Advance to Concentric vs. Eccentric</li> <li>Sport specific training programme</li> <li>Return to functional / sporting drills once &gt; 85% of strength of uninvolved leg is achieved and functional movement patterns are normal</li> </ul>		

### **DOCTOR FOLLOW-UP (Mandatory)**

3 <sup>rd</sup> Week (end)	Physio Nurse	Passive & Active ROM check If patient seeing a Physio outside of medical team: Check that milestone are being achieved Stitch removal	
6 <sup>th</sup> Week	Doctor Physio	Post-operative check-up Hip Stage Screening 1 - 2	
3 Month	Doctor Physio	Post-operative check-up Hip Stage Screening 2 – 3 (Assess for biokinetic advancement)	
6 Month	Doctor	octor Post-operative check-up Biokinetic results to be submitted before appointment	
9 Month / 1 Year	Doctor	Post-operative check-up	



